confirmation
01.02-03/06/81-00226

ACTIVITY C.L.E.J

UIC

SITE NUMBER 1

SECTION III. DETAILED DISPOSAL INFORMATION

~~Data~~ 69

This section should be completed only if active or past disposal sites were identified in section II. Section III should be completed for each site. As an example, say your activity has three sites. Make three copies of section III and complete them. Assign a number to each site (1, 2, and 3) and enter it in the upper right-hand corner.

1. Is this disposal site currently in operation or has it been closed?

Years of operation: From early to mid-1950's To ~1976

2. What is/was the name of the site (e.g., slurry pit)?

Rifle Range Chemical Dump

3. Where is/was the site located (provide a description and give activity map coordinates)?

Approximately 3 miles east south east of the intersection of US 17 and NC highway 210 at map coordinates 770290.

4. ~~Describe how the site is/was operated.~~ found chemical agent (gas) testing kits; malathion ~~dump~~ drum (55 gal empty); blank rifle cartridges (fired and unfired) from apparent War Games; report of chemical mist on foggy morning that caused choking ~~eyes~~ symptoms, and ~~a~~ possible death of 2 opossums; report of fire break equipment operator who, upon unearthing material that formed a white cloud of dust (?), ~~was~~ left his equipment and the immediate area because he was choking; area recently burned over during a managed burn; holes and depressions are forming in the area possibly due to deterioration of buried material (see #12)

OVER

(Continued) WA MH CF

(4 CONT.) Metal containers of waste material generally placed in the bottom of trenches dug for this purpose with a backhoe. Trenches were dug as deep as possible, 10 ft ± .

ACTIVITY _____

UIC _____

SITE NUMBER _____

SECTION III. DETAILED DISPOSAL INFORMATION (CONTINUED)

5. If the site was closed, briefly describe the closure procedures. _____

sandy ~~site~~ soils, & moderate slope
CW training vials
Younger trees in reported area of fill.
Eqp.

6. As well as possible, describe the wastes that entered the site. see attached memo

~~Type of Waste~~	~~Quantity~~	~~Origin~~

During the visit in March at Camp Lejeune Wallace Eakes contacted Mr. Don Tallman in Florida and Mr. Ed Carper who now lives in Indiana. Mr. Carper did not have much information. Most came from Don Tallman. As the memo shows there was a plat of area showing lot numbers + chemicals buried. This has been lost.

Wallace, Charlie Fellows & I visited site March 20. We found evidence of materials CF reports on p. 1 of this form. There were a number of old gas testing kits found, but according to EOD specialist Jerome H. Witt none contained any agent. We did see one wooden crate ~ 12x24x12" with some white granular powder. This area was vegetated with secondary growth. Evidence of settling also apparent. Plowing for firebreak has turned up old debris. Some evidence that training exercises had taken place in and about dump area. There was no sign of dump across access road. There were signs of training ie fox holes etc.

more. HDP

During IAS visit wells previously installed were sampled by Jerry Wallmeyer from Southern. Samples were to be partially scanned for priority pollutants. High THM values > 100 ppb were assumed to be mostly from prechlorination procedures at water plant. Test wells # 15, 16, 17 located at site.

ACTIVITY _____

UIC CL/NC

SITE NUMBER 1

SECTION III. DETAILED DISPOSAL INFORMATION (CONTINUED)

7. Describe the site's hydrogeology, including information on terrain, soils, water table depth, groundwater quality, nearby surface waters, etc.

The groundwater movement in this area of moderate slopes and sandy soils will be in several directions and controlled largely by topography. I expect gw is moving to the NW (small creek) and NNW (New River). Some flow is probably to the steep slope on the SE

8. Briefly describe animal and plant life surrounding the site, including any peculiarities (e.g., dying plants).

9. Do personnel live or work near the site? Please explain. _____

ACTIVITY _____

UIC CSI/NC

SITE NUMBER 1

SECTION III. DETAILED DISPOSAL INFORMATION (CONTINUED)

10. Have there been any incidents or complaints concerning this site? Explain.

11. How close is the site to the activity's boundaries? _____

12. Additional comments buried here are: DDT; PCB's in cement septic tank containers in accordance to EPA; one bulldozer operator said he buried drums at various time at least 10 feet below ground level

Reference photographs: Roll 8 (MKH-8) negative #s 33-37; Roll 9 (MKH-9) negative #s 1-8 See notes in photo log.

Also. → CRF-1 frames #11-18 } from ground
CRF-2 " #8-10 }
CRF-4 " #4-19 } from air

A memo prepared by Mr. Don Tallman referenced to chemical land fills at Camp Lejeune.

1969 assumed control from predecessor. Plat of area showing lot numbers and chemicals buried in those lots were listed in the folder (quantity, contents and all amounts buried in area) shadowed in red on plat. This continued until approximately 1973 when correspondence was directed to CG, Attention Assistant Chief of Staff, Facilities from Base Safety Manager requesting guidance and advice as to whether this dump site should continued to be used or to be channeled in another direction, new location, etc. The response to this was to continue same procedure and include chemicals from the Air Station.

In 1974, BO5100.13B was published to include Air Station. This procedure continued until 1975-1976. NREA requested all information for review. The folder containing all records was turned over to NREA. The folder was returned. Absent from the folder was the plat and could not be located. At that period, a new plat was developed listing all deposits of chemical wastes in landfill and was shadowed in red as was the original plat. Sometime later this folder was turned over to Base Maintenance, NREA people upon their request and they assumed control of the chemical disposal area. Since that I have no ~~knowledge~~ knowledge of what has transpired in that area.

COMMON CHEMICALS buried in the dump were:

DDT - estimated quantity - 50 barrels

Trichlorethylene sludge - estimated quantity unknown

Used ~~varisal~~ VARSOL (cleaning purposes)

Calcium ~~hypochloride~~ hypochlorite - HTH

Wood preservative (Carpenter Shop) vats emptied in landfill

#2 Fuel oil sludge

PCB - buried in concrete septic tanks, sealed according to instructions from EPA - 3-4 tanks)

LABORATORY MULTIPLE PARAMETER WATER QUALITY ANALYSIS RECORD

UIC

SAMPLE IDENTIFICATION

SAMPLE COLLECTION DATE			SAMPLE COLLECTION TIME	SAMPLE STATION NUMBER
MONTH	DAY	YEAR	0.2400	

NAVFAC LANTDIV 9-11330/3 (4-75)

ACTIVITY NAME: TW-15 chemical dump

LABORATORY NAME:

	PARAMETER DESCRIPTION	UNITS	DATA ELEMENT NUMBER	VALUE	
SOLIDS	TOTAL SUSPENDED SOLIDS (NON FILTERABLE RESIDUE)	MG/L	00530		
SOLIDS	TOTAL SOLIDS (TOTAL RESIDUE 103-105°)	MG/L	00500		
SOLIDS	SETTLEABLE SOLIDS (SETTLEABLE RESIDUE)	ML/L/HR	00545		
6 SOLIDS	TOTAL DISSOLVED SOLIDS (FILTERABLE RESIDUE)	~~MG/L~~ X	70300	80.0	
NUTRIENTS	N-AMMONIA (AS N)	MG/L	00610		
7,5 NUTRIENTS	N-NITRATE TOTAL (AS N)	~~MG/L~~ X	00620	0.37	
NUTRIENTS	N-NITRITE TOTAL (AS N)	MG/L	00615		
NUTRIENTS	TOTAL N (KJELDAHL)	MG/L	00625		
NUTRIENTS	ORTHOPHOSPHATE (AS PO_4)	MG/L	00660		
NUTRIENTS	TOTAL PHOSPHORUS (AS P)	MG/L	00678		
NUTRIENTS	SULFATE	MG/L	00945		
1 NON-CATEGORIZED PARAMETER	PH LABORATORY	X	00403	5.90	
NON-CATEGORIZED PARAMETER	CHLORIDE	MG/L	00940		
NON-CATEGORIZED PARAMETER	TURBIDITY LAB	JTU/FTU	W0072		
15 NON-CATEGORIZED PARAMETER	BOD	~~MG/L~~ X	00310	40.0	
12 NON-CATEGORIZED PARAMETER	COD	~~MG/L~~ X	00340	134.69	
3,5 NON-CATEGORIZED PARAMETER	TOC	~~MG/L~~ X	00680	7.8	
12,5 NON-CATEGORIZED PARAMETER	OIL AND GREASE	~~MG/L~~ X	70350	1.0	
12,5 NON-CATEGORIZED PARAMETER	PHENOLS	~~MG/L~~ X	32730	< 0.005	
NON-CATEGORIZED PARAMETER	MBAS	MG/L	38260		
NON-CATEGORIZED PARAMETER	CYANIDE	MG/L	00720		

	PARAMETER DESCRIPTION	UNITS	DATA ELEMENT NUMBER	VALUE	
HEAVY METALS	ALUMINUM, TOTAL	MG/L	01105		
HEAVY METALS	ARSENIC, TOTAL	MG/L	01002		
8 HEAVY METALS	CADMIUM, TOTAL	~~MG/L~~ X	01027	< 0.005	
8 HEAVY METALS	CHROMIUM, TOTAL	~~MG/L~~ X	01034	0.02	
HEAVY METALS	COPPER, TOTAL	MG/L	01042		
HEAVY METALS	IRON, TOTAL	MG/L	01045		
12 HEAVY METALS	LEAD, TOTAL	~~MG/L~~ X	01051	< 0.005	
HEAVY METALS	MAGNESIUM, TOTAL	MG/L	00927		
HEAVY METALS	MANGANESE, TOTAL	MG/L	01055		
HEAVY METALS	MERCURY, TOTAL	MG/L	71900		
HEAVY METALS	POTASSIUM, TOTAL	MG/L	00937		
HEAVY METALS	SILVER, TOTAL	MG/L	01077		
HEAVY METALS	ZINC, TOTAL	MG/L	01092		
COLIFORM	TOTAL COLIFORM	MFC/100ML	31503		
COLIFORM	FECAL COLIFORM	MFC/100ML	31616		
COLIFORM	TOTAL COLIFORM	MPN/100ML	31506		
COLIFORM	FECAL COLIFORM	MPN/100ML	31620		
12,5 ADDITIONAL PARAMETERS	Organic Nitrogen	X		6.84	
ADDITIONAL PARAMETERS					
ADDITIONAL PARAMETERS					
ADDITIONAL PARAMETERS					

SIGNATURE: W. H. Jennings Jr.

DATE: 2-15-79

1060 2-9-79

ENCL (2)

130 5C

LABORATORY MULTIPLE PARAMETER WATER QUALITY ANALYSIS RECORD

LANTDIV 9-11330/3 (4-75)

UIC

SAMPLE IDENTIFICATION

SAMPLE COLLECTION DATE			SAMPLE COLLECTION TIME	SAMPLE STATION NUMBER
MONTH	DAY	YEAR	0-2400	

FACILITY NAME: TW-16 chemical Dump

LABORATORY NAME:

	PARAMETER DESCRIPTION	UNITS	DATA ELEMENT NUMBER	VALUE
SOLIDS	TOTAL SUSPENDED SOLIDS (NON FILTERABLE RESIDUE)	MG/L	00530	
SOLIDS	TOTAL SOLIDS (TOTAL RESIDUE 103-105°)	MG/L	00500	
SOLIDS	SETTLEABLE SOLIDS (SETTLEABLE RESIDUE)	ML/L/HR	00545	
SOLIDS	TOTAL DISSOLVED SOLIDS (FILTERABLE RESIDUE)	MG/L	70300	130.0
NUTRIENTS	N-AMMONIA (AS N)	MG/L	00610	
NUTRIENTS	N-NITRATE TOTAL (AS N)	MG/L	00620	0.04.
NUTRIENTS	N-NITRITE TOTAL (AS N)	MG/L	00615	
NUTRIENTS	TOTAL N (KJELDAHL)	MG/L	00625	
NUTRIENTS	ORTHOPHOSPHATE (AS PO_4)	MG/L	00660	
NUTRIENTS	TOTAL PHOSPHORUS (AS P)	MG/L	00678	
NUTRIENTS	SULFATE	MG/L	00945	
NON-CATEGORIZED PARAMETER	PH LABORATORY		00403	6.2
NON-CATEGORIZED PARAMETER	CHLORIDE	MG/L	00940	
NON-CATEGORIZED PARAMETER	TURBIDITY LAB	JTU/FTU	W0072	
NON-CATEGORIZED PARAMETER	BOD	MG/L	00310	32.0.
NON-CATEGORIZED PARAMETER	COD	MG/L	00340	215.87.
NON-CATEGORIZED PARAMETER	TOC	MG/L	00680	12.4
NON-CATEGORIZED PARAMETER	OIL AND GREASE	MG/L	70350	< 1.0.
NON-CATEGORIZED PARAMETER	PHENOLS	MG/L	32730	< 0.005
NON-CATEGORIZED PARAMETER	MBAS	MG/L	38260	
NON-CATEGORIZED PARAMETER	CYANIDE	MG/L	00720	

	PARAMETER DESCRIPTION	UNITS	DATA ELEMENT NUMBER	VALUE
HEAVY METALS	ALUMINUM, TOTAL	MG/L	01105	
HEAVY METALS	ARSENIC, TOTAL	MG/L	01002	
HEAVY METALS	CADMIUM, TOTAL	MG/L	01027	< 0.005
HEAVY METALS	CHROMIUM, TOTAL	MG/L	01034	0.08
HEAVY METALS	COPPER, TOTAL	MG/L	01042	
HEAVY METALS	IRON, TOTAL	MG/L	01045	
HEAVY METALS	LEAD, TOTAL	MG/L	01051	0.215.
HEAVY METALS	MAGNESIUM, TOTAL	MG/L	00927	
HEAVY METALS	MANGANESE, TOTAL	MG/L	01055	
HEAVY METALS	MERCURY, TOTAL	MG/L	71900	
HEAVY METALS	POTASSIUM, TOTAL	MG/L	00937	
HEAVY METALS	SILVER, TOTAL	MG/L	01077	
HEAVY METALS	ZINC, TOTAL	MG/L	01092	
COLIFORM	TOTAL COLIFORM	MFC/100ML	31503	
COLIFORM	FECAL COLIFORM	MFC/100ML	31616	
COLIFORM	TOTAL COLIFORM	MPN/100ML	31506	
COLIFORM	FECAL COLIFORM	MPN/100ML	31620	
ADDITIONAL PARAMETERS	Organic Nitrogen	X		8.36
ADDITIONAL PARAMETERS				
ADDITIONAL PARAMETERS				
ADDITIONAL PARAMETERS				

NAME: W. H. Jennings, Jr.

DATE: 2-15-79

#1061 2-9-79

EUCI (1)

130 SE

OPNAV 5216/144 (REV. 6-70)
S/N 0107-LF-778-8099

DEPARTMENT OF THE NAVY

Memorandum

DATE: 6 March 1981

FROM Ms. Betz, Water Quality Control Lab., N. R. E. A. Div.

TO Memorandum for the Record

SUBJ TLZ Owl

ENCL (1) Table of Readins Taken at TLZ Owl on 3 March 1981
(2) Maps of Sample Points at TLZ Owl

1. On 3 March 1981, Ens. B. Kalisch of the Preventive Medicine Unit, Naval Regional Medical Center, Mr. R. J. Andrews of the Base Safety Office, Marine Corps Base, and Ms. E. A. Betz of the Quality Control Laboratory, Natural Resources and Environmental Affairs Division, Base Maintenance Department, Marine Corps Base, went out to TLZ Owl, pass the old Chemical Landfill, to take a look. Everyone wore a Film Badge obtained from the N. R. M. C.

2. Ens. Kalisch carried a Pulse Rate Meter with a Cintillation Probe, Serial 180. The cystal in the Cintillation Probe interacts with Gamma Rays emitted by a sample to produce light pulses. The meter counts the number of light pulses per minute to produc reading of counts per minute. Thelaverage background reading out on the dirt roa s been 2000-4000 counts per minute with this meter. Enclosure (1) is a list of twenty readings taken by Ens. Kalisch on 3 March 1981, with the above mentioned meter and probe. Enclosure (2) is a map showing the approximate locations of the twenty readings.

Elizabeth A. Betz

Elizabeth A. Betz
Supervisory Chemist

cc- Mr. Sharpe, Ecologist, N. R. E. A. Div.
Ens. Kalisch
Mr. R. J. Andrews

READINGS TAKEN AT TLZ OWL ON 3 MARCH 1[illegible]

Sample	Surface Reading	Depth of	Reading
#1	5800	10"	10000
#2	6000	10"	9500
#3	5500	10"	8500
#4	5500	10"	8500
#5		10"	9000
#6	5000	10"	8000
#7	6000	10"	9500
#8	4000	10"	5500
#9	6000	10"	9700
#10	5700	10"	8700
#11	5600	10"	9000
#12	5700	10"	9300
#13	5500	10"	9000
#14	5500	10"	8800
#15	5300	10"	8000
#16	4700	10"	6400
#17	5300	30"	9300
#18	4800	25"	7700
#19	6000	6"	8700
#20	5300	20"	8000

Enclosure (1)

Date: 15 May 1981

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., NREAD, EMaintDept

Subj: Hazardous Waste Sampling on 10 April 1981; Results of

1. Below are the results of the hazardous waste sampling on 10 April 1981, at the chemical landfill, received from LANTNAVFACENGCOM over the phone by Ens. Kalisch, Environmental Health Officer, Preventive Medicine Unit, Naval Regional Medical Center.

Test Well 15	Methylene chloride	~2 ppb
Test Well 16	1,1-Dichloroethane	38 ppb
	Methylene chloride	13 ppb
	1,2-Dichloroethane	52 ppb
	1,1-Dichloroethylene	73.6ppb
	Toluene	51.8ppb
Below Test Well 16	Methylene chloride	3.4ppb
Rad Pool	1,1-Dichloroethane	2.0ppb
	Methylene chloride	2.4ppb
Pool with Barrel	Benzene	1.0ppb
	Toluene	181 ppb
	1,1-Dichloroethane	176 ppb
	1,1,1-Trichloroethane	103 ppb
	1,2-Dichloroethane	101 ppb
	1,1-Dichloroethylene	258 ppb
	1,1,2-Trichloroethane	252 ppb
	Chloroform	34.6ppb
	Methylene chloride	37 ppb
	Trichloroethylene	141 ppb
Stream Bed Below, Behind Dump about 100 yds SSE of Test Well 17	Methylene chloride	14 pppb
	Tetrachloroethylene	5.8ppb
Tidal Marsh at End of Road	Clean	
South of Stram at Everett Creek	Clean	

5/15/81

- Drinking Water Well
  Methylene chloride 4.0ppb

RR 47 - Drinking Water Well
  Clean

RR 97 - Drinking Water Well
  Chloroform 16.6ppb
  Methylene chloride 5.8ppb
  Trichloroethylene 1.8ppb

RR 85 - Water Treatment Plant - Treated Water
  Chloroform 17 ppb
  Methylene chloride 3.0ppb

Elizabeth A. Betz

Elizabeth A. Betz
Supervisory Chemist

Summary by Camp Lejeune
Wallace Lakes
3/82

Chemical Dump (RR)

- Dump established in early to mid 50ies
- In Early Days Marine units used the Dump for HAZ materials
- Mr. Ed Carper (1959-65) Had Admin control of Dump.
- In Early Days parallel Ditches were dug + used to dispose Materials
- Mr. Tillman had admin control of Dump 1965-75/6
- Dump closed ~ 76 (late 70ies)
- Materials Dumped
  - PCP - pentachlorophenal
  - DDT
  - TCE (many other PPP chemicals)
  - Creosol Board
  - Shoe impregnite (water Repellent)
  - LARSOL
  - gas cylinders
  - cylinders for filling Balloons
  - CANVAS (tents)
  - HTH
  - malathion
  - Diazinon
  - Lindane
  - chemical test kits
  - Maybe agents

Was Chief of Staff, Installations

Carl Williams

Date: 9 June 1981

9 June, 1981

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., NREAD, BMaintDept

Subj: Hazardous Waste Sampling on 20 May 1981; Results of

1. Below are the results of the hazardous waste sampling on 20 May 1981, at the chemical landfill, received from LANTNAVFACENGCOM over the phone by Mr. Danny Sharpe. No oficial copy has been received yet.

Test Well 15	Clean		
Test Well 16	Benzene	77.8 ppb	
	Toluene	316 ppb	
	1,1,1-Trichloroethane	33.2 ppb	
	1,1,2,2-Tetrachloroethane	1.8 ppb	
	Trichloroethylene	15.6 ppb	
Rad Pool	Toluene	53.6 ppb	
Water Plant		Raw	Treated
	1,1-Dichloroethane	5.4 ppb	3.4 ppb
	Chloroform	53.4 ppb	94.4 ppb
	Methylene Chloride	14.6 ppb	4.0 ppb

Elizabeth A. Betz

Elizabeth A. Betz
Supervisory Chemist

Pertinent information from fact sheet prepared by C. Lejeune.

ACTIVITY Marine Corps Base, Camp Lejeune

UIC 67001

SITE NUMBER 1

SECTION III. DETAILED DISPOSAL INFORMATION

This section should be completed only if active or past disposal sites were identified in section II. Section III should be completed for each site. As an example, say your activity has three sites. Make three copies of section III and complete them. Assign a number to each site (1, 2, and 3) and enter it in the upper right-hand corner.

1. Is this disposal site currently in operation or has it been closed?
Not active

Years of operation: From unknown To approximately 1978

2. What is/was the name of the site (e.g., slurry pit)?
Toxic chemical dump, Rifle Range Area

3. Where is/was the site located (provide a description and give activity map coordinates)?
Approximately 3 miles east south east of the intersection of US Highway 17 and NC Highway 210 at map coordinates 770290. Aboard Marine Corps Base

4. Describe how the site is/was operated. Toxic materials were buried in containers and covered with soil. As a need arose to dispose of a material, it was taken to the site, a hole dug and the container of waste or other toxic material was placed in it and covered with dirt.

ACTIVITY Marine Corps Base, Camp Lejeune

UIC 67001

SITE NUMBER 1

7. Describe the site's hydrogeology, including information on terrain, soils, water table depth, groundwater quality, nearby surface waters, etc.

The site is located approximately 300 meters southwest of New River at an elevation of approximately 25 ft. above sea level. Based on soils maps developed by Soil Conservation Service, USDA, soils in the area have the following characteristics. The soil (baymeade) has a sandy surface layer approximately 2 ft thick. Below this, materials are sandy loams or loamy sands with high permeability. Depth to seasonal high water table is 3.5-5 ft. The soil has high corrosivity to concrete and low for steel.

8. Briefly describe animal and plant life surrounding the site, including any peculiarities (e.g., dying plants).

The site is surrounded by managed forests consisting of loblolly pine and various hardwood trees and shrubs. Much of the site is covered with pine saplings. There are no apparent effects of the site on surrounding vegetation.

9. Do personnel live or work near the site? Please explain. No

The site is in a relatively remote location and access is restricted to authorized personnel.